

SYSTEMS TO MANAGE AND SHARE HEALTH INFORMATION AND KNOWLEDGE

Note to readers and users of the *Healthiest Wisconsin 2020* Profiles: This *Healthiest Wisconsin 2020* Profile is designed to provide background information leading to collective action and results. This profile is a product of the discussions of the Focus Area Strategic Team that was convened by the Wisconsin Department of Health Services during September 2009 through November 2010. The objectives from this Focus Area have been recognized as objectives of *Healthiest Wisconsin 2020*. (Refer to Section 4 of the *Healthiest Wisconsin 2020* plan.) A complete list of *Healthiest Wisconsin 2020* Focus Area Strategic Team Members can be found in Appendix A of the plan.

Definition

Systems to manage and share health information and knowledge means that population health data drive community health assessment, policy development, assurance, service delivery, resource management, and accountability. Systems used to collect, manage and interpret population health data are integrated, accessible, interoperable, broadly used by public health partners, and support the overarching, infrastructure, and health focus areas of *Healthiest Wisconsin 2020*.

Importance of the Focus Area

Information technology is pervasive in society today. It supports and enables many aspects of life and has become the single most important technology in use world-wide. Information technology has revolutionized how business is conducted in all areas except health care, including public health, where adoption and use of health information technology has been slow and information sharing sporadic and often manual.

As stated by the U.S. Department of Health and Human Services (2010), “health information technology allows comprehensive management of medical information and its secure exchange between health care consumers and providers. Broad use of health information technology has the potential to improve health care quality, prevent medical errors, increase the efficiency of care provision and reduce unnecessary health care costs, increase administrative efficiencies, decrease paperwork, expand access to affordable care, and improve population health.”

According to the Congressional Budget Office, (2008), health information technology has the potential to significantly increase the efficiency of the health sector by helping health care providers manage information. However, cost-effective delivery of health care

services cannot be achieved unless health information technologies are widely and consistently adopted by health care organizations, public health departments and consumers. Health data must be available where and when they are needed, in a manner that respects individual privacy, and the systems that deliver the data must be secure, highly functional and easy to use.

Health information technology also has the potential to help individuals manage their own information, make better individual health decisions, and work with health care providers to make care and treatment decisions. Health information technology is designed to gather all relevant health information where it is needed, when it is needed, allowing consumers and health care providers see the “big picture” and make decisions accordingly. Health information technology facilitates secure information-sharing both within an individual’s primary health care organization and with health care providers outside the primary health care organization when necessary.

The benefits for state and local health departments and their public health system partners are potentially enormous. Public health departments rely heavily on population health data to make decisions on where and how to target services, education, and intervention. Health information technology can deliver data to state and local health departments that are comprehensive, more accurate, and timelier than is possible with the current, often manual, processes. Public health emergency preparedness, response, and recovery programs benefit from this automation, as do communicable disease, environmental and occupational health, and chronic disease surveillance programs, because more information is available to predict and monitor the course of disease outbreaks and monitor progress toward public health goals over time.

Access to and use of population-based data and information are central to protecting health and preventing disease. Integrated data are critical to the effectiveness of local, state, and federal public health systems. Public health information technologies are evolving in Wisconsin to meet the needs of their users and the challenges and opportunities presented by widespread electronic exchange of health information. Such technologies collect, manage, analyze, and distribute the data on which health departments depend.

Many of these technologies are either in place or coming online. Taken together, these data systems cover much of the expected life span of individuals. With access to complete, consistent population health data – within an established legal and technical framework that safeguards individual information and ensures that information is shared only when it is needed – public health departments will for the first time be able to thoroughly evaluate the health of the public and monitor attainment of the state health plan goals.

Progress has been made but much remains to be accomplished before Wisconsin has an integrated electronic public health infrastructure capable of delivering statewide and community-level data. The challenge for public health is to maintain existing capabilities while expanding its ability to communicate not only with the health care

sector but with collaborating partners from government, the public, private, nonprofit, civic, and voluntary sectors, all in the face of contracting and uncertain funding. Wisconsin health care organizations, state and local public health agencies, and consumers must embrace the health information technology initiative now under way at the state and national level. Failure to do so will put health care increasingly out of reach financially for many consumers, will markedly decrease the health and well-being of the citizens of Wisconsin, and will put health care organizations who do not adopt these technologies at a competitive disadvantage.

Wisconsin Data Highlights

- Wisconsin has in place, or is implementing, data systems to support immunizations, vital records, communicable disease surveillance, electronic laboratory reporting, business intelligence, maternal and child health, environmental tracking, and the Women, Infants and Children (WIC) program.
- Wisconsin is developing, as part of the federal health information technology initiative, a governance structure and plan for improving the quality and quantity of health information available through the electronic exchange of information among health care providers, local health departments, and consumers.
- Automated information exchange between health care systems and public health systems is becoming more common as demonstrated in the exchange of immunization records, electronic laboratory reporting, and birth reporting.
- Hospital admission, discharge, and transfer data for monitoring emerging health threats in southeast Wisconsin now comes to the state and local health departments through the Wisconsin Health Information Exchange.
- Statewide health care claims data spanning multiple systems and settings (physician offices, outpatient services, pharmacies, laboratories, and hospitals) are available to state and local health departments through the Wisconsin Health Information Organization.
- Funding to support major public health data systems is uncertain from year to year and often associated with specific program objectives set by federal government agencies. Consequently, public health departments often have little discretion about which information technology initiatives they pursue.
- Specific programs often have access to good-quality data about their activities but this is not universally true. Complicated data-use agreements often pose barriers to data access and integration. In other cases, data are not complete: for example addresses are not standardized and geocoded.
- In many cases the data in a given system are of high quality and of value to many program areas, but unavailable because of technical and/or programmatic limitations.

As a result, programs have difficulty developing a comprehensive picture of a given client or population group.

Objective 1

By 2020, there will be efficient, appropriate, and secure flow of electronic information among health information systems to optimize decisions for personal and community health.

Objective 1 Indicator

Proportion of hospitals, physicians and clinics that meet the 2013 federal *meaningful use* criteria.

Objective 1 Rationale

Decisions related to personal and community health are currently made with incomplete and often out-of-date information. The most significant cause is the inability of health information systems to securely and efficiently exchange information. A secondary cause is the inability to make the information available to providers in a form that is convenient and appropriate to the situation and to consumers in a form that visually clear and easily understandable. The ability to exchange information between and among systems -- those used by health organizations, health departments, and consumers -- will improve the overall quality of decision-making by ensuring that decisions are informed by the latest and most complete information available.

Objective 2

By 2020, access to nationally certified electronic health record systems and health information exchange will be available to all health consumers, providers, and public health officials.

Objective 2 Indicator

Proportion of physicians, hospitals and patients with *certified electronic health record systems*.

Objective 2 Rationale

Sound health decisions cannot be made by consumers, providers, or health departments without access to complete and timely information delivered in a consistent format. Access to nationally certified electronic health record systems will ensure that the data used for decision-making are accurate and consistent, because the certification process will ensure that the systems that collect and exchange data have met rigorous criteria and standards for accuracy, consistency and usability.

Objective 3

By 2020, electronic health information systems will collect comparable data allowing measurement of the magnitude and trends of disparities in health outcomes and determinants of health for those with disabilities and among populations of differing

races, ethnicities, sexual identities and orientations, gender identities, and educational or economic status.

Objective 3 Indicators

- Proportion of Division of Public Health periodic surveys and program data systems that collect this demographic information uniformly. (Indicator to be developed.)
- Proportion of hospitals, physicians and clinics that meet the 2013 federal *meaningful use* criteria for demographic information collection.

Objective 3 Rationale

Health disparities cannot be identified, let alone reduced, without the ability to accurately measure the depth and breadth of the disparity and how it changes over time. Adoption of electronic health records by providers will greatly improve the ability of health departments and their public health system partners to identify and measure the extent of disparities for those with disabilities and among populations of differing races, ethnicities, sexual identities and orientations, gender identities, and educational or economic status. Existing statewide public health surveillance efforts are incomplete because data systems that capture disability information are fragmented, definitions of disability are not standardized across data sources, and population-based and administrative data related to disabilities are not effectively analyzed to document health status and health-related needs of those with disabilities.

Potential evidence- or science-based actions to move the focus area objectives forward over the decade

- The adoption of nationally recognized health information technology standards and protocols for data exchange and nationally certified electronic medical record technologies for capturing encounter, test, and order data will be enabled by the U.S. Department of Health and Human Services.
 - Adoption of these standards, protocols, and technologies will be encouraged at the federal level by the U.S. Department of Health and Human Services through the use of incentive payments to eligible professionals and hospitals.
 - Adoption of these standards, protocols, and technologies will be encouraged at the state level by the Wisconsin Department of Health Services through the efforts of the Wisconsin eHealth Program and its Wisconsin Relay of Electronic Data (WIRED) for Health Board.

References

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